

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPLICANT(s):	KOSKI ET AL.	CONF. NO.	2231
SERIAL NO.:	09/019,614	ART UNIT:	2615
FILING DATE:	FEBRUARY 6, 1998	EXAMINER:	Mei Xu
TITLE:	METHOD FOR SETTING AUDIO PARAMETERS IN A DIGITAL SIGNAL PROCESSOR IN AN ELECTRONIC DEVICE, AND ELECTRONIC DEVICE		
ATTORNEY			
DOCKET NO.:	460-007777-US (PAR)		

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APPELLANTS BRIEF

(37 C.F.R. §1.192)

This is an appeal from the final rejection of the claims in the subject application. A Notice of Appeal was filed on April 11, 2007.

[1] REAL PARTY IN INTEREST

The real party in interest in this Appeal is the assignee, Nokia Corporation, Espoo, Finland.

[2] RELATED APPEAL AND INTERFERENCES

There are no related appeals or interferences.

[3] STATUS OF THE CLAIMS

Claims 1-7, 9-13,31 and 32 stand rejected under 35USC103(a) based on the combined teaching of Piosenka, et al, U.S. Patent No. 5,926,756, in view of the reference Wong, U.S. Patent No. 5,881,103. The rejection is contained in a final office action mailed November 14, 2006. Claims 1-7,9-13,31 and 32 are presented for consideration in this Appeal and are contained in the attached Claim Appendix.

[4] STATUS OF AMENDMENTS FILED SUBSEQUENT TO FINAL REJECTION

In an amendment filed on February 13, 2007, after final rejection, Applicant amended claims 2,4,6,and 9 to remove reference numerals, and claim 9 was further amended to correct an error in dependency. Although it is not clear from the Advisory Action of March 8, 2007, because the substance of the claim amendments were to eliminate an informal claim objection, it is assumed that the amendments were entered and that the objection is no longer applied.

[5] SUMMARY OF THE CLAIMED SUBJECT MATTER

The method of independent claim 1 of this application is described with reference to figures 1 and 2 and is supported in the specification in page 7, line 11 through page 9, line 6. The method involves setting audio parameters for controlling processing in a digital signal processor of a mobile communication device 1. An auxiliary device 11, having audio parameters, relating to the audio properties of the auxiliary device 11, is connected (201) to the mobile communication device 1. In response to the connection, at least some of the audio parameters are loaded (207) from the auxiliary device 11 into digital signal processor 4 of the mobile communication device 1 for use during operation of the mobile communication device 1 with the auxiliary device 11. During the connection and loading process, a two way transfer of digital data (208,210) between the auxiliary device and said mobile communication device is executed by means of microcontroller 13 in auxiliary device 11.

The mobile communication device 1 of independent claim 5 is described in the specification on page 4, lines 6-14 and on page 5, lines 16 to 28, with reference to figure 1. Within mobile communication device 1, a digital signal processor 4 for processing audio signals is connected with a memory for storing audio parameters used in controlling the processing of audio signals in the digital signal processor. An auxiliary device connection 10 is provided for receiving auxiliary device 11. Auxiliary device 11 includes audio parameters relating to the audio properties for use with auxiliary device 11 with the mobile communication device 1. Auxiliary device 11 includes a microcontroller 13. A communication interface 12 provides a communication link for loading the audio parameters from the auxiliary device 11 into the memory 3 for use during operation of the mobile communication device 1 with the auxiliary device 11. Interface 12 is configured to provide two way communication of digital data between said microcontroller 12 of the auxiliary device 11 and said mobile communication device 1.

Claim 31 is drawn to auxiliary device 11, as shown in figure 1, and described on page 5, line 33 to page 6, line 9. Auxiliary device 11 is adapted for connection to a mobile communication device 1 and comprises a microcontroller 12. A memory 15 is operatively associated with the microcontroller 12 for storing audio parameters relating to the operation of the auxiliary device for use by the mobile communication device 1 in controlling the processing of audio signals in digital signal processor 4, when the auxiliary device 11 is connected to the mobile communication device 1. A connection 12 is provided for connecting the auxiliary device with the mobile communication device. An interface within microcontroller 13 is adapted for sending the audio parameters from the auxiliary device 11 to the mobile communication device 1 by two way communication of digital data.

Independent claim 32 is drawn to a program product, as described on page 7, beginning at line 11 through page 9, ending at line 6, with reference to figure 2. The program product provides machine executable code for setting audio parameters of an auxiliary device 11 for use in the digital signal processor 4 of a mobile communication device 1. The program code causes the establishment of a connection between microcontroller 13 of auxiliary device 11 and the digital signal processor 4 for two way communication (208,210). Microcontroller 13 is queried (201) for stored audio parameters. The audio parameters of the digital signal processor 4 are set by loading at least some of the audio parameters (207), relating to the operation of the auxiliary device 11, from the auxiliary device 11 into the digital signal processor 4 for use during operation of the mobile communication device 1, while the auxiliary device 11 is connected to the mobile communication device 1.

[6] ISSUES PRESENTED FOR REVIEW

A. The issue presented for review is the propriety of the Examiner's rejection of Claims 1-7, 9-13, 31 and 32 under 35USC103(a) based on the combined teaching of Piosenka, et al, U.S. Patent No. 5,926,756, in view of the reference Wong, U.S. Patent No. 5,881,103. The rejection is contained in a final office action mailed November 14, 2006..

[7] Argument

The Examiner has not established that the subject matter claimed in this application is obvious under 35USC103(a) based on the combined teaching of the references Piosenka, and Wong.

The combined teaching of Piosenka and Wong does not render claims 1-13, 9-13 and 31-32 obvious because it fails to teach or otherwise suggest each and every limitation of the claims. It is well settled that in order to establish a prima facie case for obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, without reference to the disclosure of this application. (MPEP Section 2142) ***In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 - § 2143.03 for decisions pertinent to each of these criteria."**

In particular the combined teaching fails to disclose or suggest the claimed features of independent claims 1, as follows:

"an auxiliary device connection for connecting an auxiliary device having audio parameters relating to audio properties of the auxiliary device with the mobile communication device;

a microcontroller in said auxiliary device; and

wherein the mobile communication device further comprises communication interface for communicating with said microcontroller for loading the audio parameters from the auxiliary device into the memory for using said at least some of the audio parameters during operation of the mobile communication device when the auxiliary device is connected to the mobile communication device, said communicating being configured to be conducted by two way communication of digital data between said microcontroller of the auxiliary device and said mobile communication device."

Equivalent language is contained in independent claims 5, 31 and 32.

Applicant submits that the Examiner has become hopelessly enmeshed in supporting the analogy that the PC of Piosenka performs in an analogous manner to the auxiliary device of the claims of this application. It is stated in the Office Action of November 14, 2006, as follows:

"....further the data includes volume controls and ring controls indicates audio parameters (col.6, lines 43-47), which read connecting to at least one auxiliary device, which as well indicates loading audio parameters into processor of the PC during operation and these audio parameters are related to audio properties of the PC itself since they are being generated by the PC."

Central to the Examiners position, in the application of Piosenka to the claims of this application, is that the whatever is transferred from the PC to the cellular phone, in the way of "audio paramenters", in Piosenka, must be used by the cellular phone to enhance the audio performance of the PC while the PC is operating in cooperation with the cellular phone. This is simply not the case and demonstrates that such contortions would not be obvious to one skilled in the art. The transfer described in Piosenka is done and the cooperation between the two devices ends. Whatever data is transferred is not used during the connection of the two devices. Whatever data is transferred is used by the cell phone separately from the PC.

The system of Piosenka comprises a PC, an interface unit, and a cellular phone. The interface unit may be included in the cellular phone or it may be an external device. The PC is used to program the cellular phone, through the interface unit for use of the cellular phone independently of the PC. The programming may include setting volume controls or ring tones, for example, but the PC is connected to the interface only when the programming of the cellular phone is executed and the cellular phone is disconnected from the PC, when the cellular phone is operated for normal cellular communication. Even if the PC was a PDA, as the Examiner asserts, the situation would not change. Still the volume control or ring tone are not related to the audio

properties of the PC or the interface unit. The PC is only used for sending those parameters to the cellular phone. Further, the cellular phone of Piosenka et al. does not use the volume control or ring tones when connected to the PC. There is no analogy between the auxiliary device of the claims of this application and the PC or cellular phone of the reference Piosenka. The Examiner still seems to maintain that the PC or PDA is in some way analogous to the auxiliary device of the claims, but again this is just not the case. This analogy fails for the reasons stated above and further, in col. 1, lines 8—13 of Piosenka et al, it is stated:

“Advances in technology have resulted in cellular telephones with an ever increasing range of programmable features. Such programmable features include, for example, programmable personal directories, timers, tone controls, volume controls, ...” (emphasis added)

It is clear from the above that the volume control is a feature of the cellular phone and is not used with the PC or the interface unit. The same applies to the ring tones. Although the parameters may be input by the user by using keyboard of the PC or the parameters may have been stored on the PC for downloading to the cellular phone, the parameters are not related to the audio properties of the PC, (the auxiliary device according to the Examiner's analogy). The user need know nothing about the audio properties of the PC to program the cellular phone. Further, Piosenka et al. is totally silent on the audio properties of the PC. The reference Piosenka there fails to disclose or suggest the above features of the independent claims.

In the system of Wong et al. audio parameters are stored in a memory of an auxiliary device. When the auxiliary device is connected to a cellular phone the parameters are read from the memory to the cellular phone. The processor of the cellular phone adjusts filter parameters on the basis of parameters of the auxiliary device. The communication is not two-way communication by means of operating the microcontroller in said auxiliary device. The reference Wong, therefore, fails to disclose or suggest an auxiliary device having the features described in the claims.

These grounds apply equally to the rejected dependent claims, all of which, by dependency, have the limitations described in the independent claims. The cited reference Wong fails to remedy the deficiencies of the primary reference Piosenka.

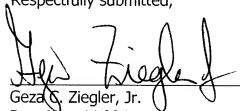
[8] SUMMARY

The combined teaching of the cited references Piosenka and Wong fails to disclose or suggest the features of claims 1, 5, 31, or 32. The Examiner has failed to present a prima facie case for obviousness.

It is respectfully submitted that all of the claims, as presented, are clearly novel and patentable over the prior art of record. Accordingly, the Board of Appeals is respectfully requested to favorably consider the rejected claims and to reverse the final rejections, thereby enabling this application to issue as a U.S. Letters Patent.

The Commissioner is hereby authorized to charge payment of \$500 for the Appeal Brief as well as for any other fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,



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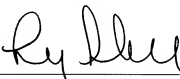
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Lisa Shimizu
Person Making Deposit

CLAIM APPENDIX

(As presented in February 13, 2007 Response)

1. (previously presented) A method for setting audio parameters controlling processing in a digital signal processor of a mobile communication device comprising the steps of:

connecting at least one auxiliary device, having audio parameters relating to audio properties of the auxiliary device, to the mobile communication device,

loading at least some of the audio parameters from the auxiliary device into the digital signal processor of the mobile communication device for using said at least some of the audio parameters during operation of the mobile communication device when the auxiliary device is connected to the mobile communication device;

conducting two way communication of digital data between the auxiliary device and said mobile communication device by means of operating a microcontroller in said auxiliary device to conduct said two way communication.

2. (currently amended) The method according to claim 1, wherein the audio parameters are loaded from the auxiliary device (~~11~~) via the auxiliary device connection (~~10~~).

3. (Previously Presented) The method according to claim 1, wherein the audio parameters are loaded at the stage when the auxiliary device is connected to or detached from the mobile communication device or when the auxiliary device changes its audio mode.

4. (Currently Amended) The method according to claim 3, wherein the electronic device (11) comprises further a detection line (23) and a connection bus (12), and that the connection of the auxiliary device (11) is detected on the basis of a change in the voltage of the detection line (23) or on the basis of messages transferred via the connection bus (12) between the mobile communication device and the auxiliary device.

5. (previously presented) A mobile communication device comprising:

a digital signal processor for processing audio signals;

a memory for storing audio parameters controlling the processing of audio signals in the digital signal processor, and

an auxiliary device connection for connecting an auxiliary device having audio parameters relating to audio properties of the auxiliary device with the mobile communication device;

a microcontroller in said auxiliary device; and

wherein the mobile communication device further comprises communication interface for communicating with said microcontroller for loading the audio parameters from the auxiliary device into the memory for using said at least some of the audio parameters during operation of the mobile communication device when the auxiliary device is connected to the mobile communication device , said communicating being configured to be conducted by two way communication of digital data between said microcontroller of the auxiliary device and said mobile communication device.

6. (Currently Amended) The device according to claim 5, further comprising a detection line (23) and a connection bus (12) and means (2, 24) for detecting the connection of the auxiliary device (11) into the auxiliary device connection (10) either on the basis of a change in the voltage of the detection line (23) or on the basis of the messages transferred via a detection bus (12) between the mobile communication device and the auxiliary device (11).

7. (Original) The device according to claim 5, further comprising a transmitter/receiver unit (6) of a mobile station.

8. (Cancelled)

9. (Currently Amended) The device according to ~~claim 8~~ claim 5, wherein the auxiliary device (11) comprises an auxiliary loudspeaker (26) and an auxiliary microphone (27).

10. (Original) The method according to claim 1, wherein said audio parameters are other than data used to recognize the type of auxiliary device.

11. (Original) The method according to claim 1, wherein all of said audio parameters are loaded into the digital signal processor from the auxiliary device.

12. (Original) The device according to claim 5, wherein said audio parameters are other than data used to recognize the type of auxiliary device.

13. (Original) The device according to claim 5, wherein all of said audio parameters are loaded into the digital signal processor from the auxiliary device.

14-30 (Cancelled)

31. (previously presented) Auxiliary device for connection to a mobile communication device comprising:

a microcontroller;

a memory, operatively associated with the microcontroller, for storing audio parameters relating to audio properties of the auxiliary device and associated with the operation of the auxiliary device for controlling the processing of audio signals in a digital signal processor of the mobile communication device when the auxiliary device is connected to the mobile communication device;

a connection for connecting the auxiliary device with the mobile communication device; and

an interface within said microcontroller for sending the audio parameters from the auxiliary device to the mobile communication device by two way communication of digital data with the mobile communication device.

32. (previously presented) Program product for storing a software program comprising machine executable code for setting audio parameters of an auxiliary device relating to audio properties of the auxiliary device for a mobile communication device in a digital signal processor of a the mobile communication device comprising;

establishing a connection between a microcontroller of the auxiliary device and the digital signal processor for two way communication;

querying the microcontroller for audio parameters stored therein; and

setting audio parameters of the digital signal processor by loading at least some of the audio parameters relating to audio properties of the auxiliary device from the auxiliary device into the digital signal processor for using said at least some of the audio parameters during operation of the mobile communication device when the auxiliary device is connected to the mobile communication device.

EVIDENCE APPENDIX

(Not Applicable)

RELATED PROCEEDINGS APPENDIX

N/A